

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

*Sil
C
B,*

1. (Previously Presented) A pyrolytic boron nitride double container for a source of molecular beams used in molecular beam epitaxy, comprising:

an outer container having an outer container transmissivity with respect to light having a wave number of 2600 cm⁻¹ to 6500 cm⁻¹, and

an inner container having an inner container transmissivity with respect to light having a wave number of 2600 cm⁻¹ to 6500 cm⁻¹;

wherein said inner container transmissivity is 90% or less of said outer container transmissivity.
2. (Currently Amended) The pyrolytic boron nitride double container according to Claim 1, said inner container comprising an inner surface and an outer surface;

wherein ~~said outer surface has a roughness such that said inner container transmissivity is 90% or less of said outer container transmissivity.~~ transmissivity due to roughness of the outer surface.
3. (Currently Amended) The pyrolytic boron nitride double container according to Claim 1, comprising a doped layer comprising at least one element doped into said inner container;

wherein said at least one element is not selected from the group consisting of nitrogen and boron, and

wherein ~~said doped layer has at least one of a thickness, an area, and a doping density such that said inner container transmissivity is 90% or less of said outer container transmissivity.~~ transmissivity due to at least one of a thickness, an area, and a doping density of said doped layer.

4. (Currently Amended) The pyrolytic boron nitride double container according to Claim 2, comprising a doped layer comprising at least one element doped into said inner container;

wherein said at least one element is not selected from the group consisting of nitrogen and boron, and

wherein ~~said doped layer has at least one of a thickness, an area, and a doping density such that said inner container transmissivity is 90% or less of said outer container transmissivity. transmissivity due also to at least one of a thickness, an area, and a doping density of said doped layer.~~

5. (Previously Presented) The pyrolytic boron nitride double container according to Claim 3, wherein said doped layer is located within the inner container, and wherein said doped layer is not located on said inner surface or said outer surface of said inner container.

6. (Previously Presented) The pyrolytic boron nitride double container according to Claim 4, wherein said doped layer is located within the inner container, and wherein said doped layer is not located on said inner surface or on said outer surface of said inner container.

7. (Previously Presented) The pyrolytic boron nitride double container according to Claim 3, wherein said at least one element is selected from the group consisting of Si, C, and A1.

8. (Previously Presented) The pyrolytic boron nitride double container according to Claim 4, wherein said at least one element is selected from the group consisting of Si, C, and A1.

9. (Previously Presented) The pyrolytic boron nitride double container according to Claim 5, wherein said at least one element is selected from the group consisting of Si, C, and A1.

10. (Previously Presented) The pyrolytic boron nitride double container according to Claim 6, wherein said at least one element is selected from the group consisting of Si, C, and A1.

11. (Currently Amended) The pyrolytic boron nitride double container according to Claim 1, wherein ~~an inner container thickness of said inner container is greater than an outer container thickness of said outer container such that said inner container transmissivity is 90% or less of said outer container transmissivity due to an inner container thickness of said inner container being greater than an outer container thickness of said outer container.~~

12. (Currently Amended) The pyrolytic boron nitride double container according to Claim 2, wherein ~~an inner container thickness of said inner container is greater than an outer container thickness of said outer container such that said inner container transmissivity is 90% or less of said outer container transmissivity due also to an inner container thickness of said inner container being greater than an outer container thickness of said outer container.~~

13. (Previously Presented) The pyrolytic boron nitride double container according to Claim 1, wherein said inner container comprises a top, open portion and a bottom portion, and wherein said inner container transmissivity varies from said bottom portion to said top, open portion.

14. (Previously Presented) The pyrolytic boron nitride double container according to Claim 2, wherein said inner container comprises a top, open portion and a bottom portion, and wherein said inner container transmissivity varies from said bottom portion to said top, open portion.

15. (Previously Presented) The pyrolytic boron nitride double container according to Claim 13, wherein said inner container transmissivity decreases from said bottom portion to said top, open portion.

16. (Previously Presented) The pyrolytic boron nitride double container according to Claim 14, wherein said inner container transmissivity decreases from said bottom portion to said top, open portion.

17. (Previously Presented) The pyrolytic boron nitride double container according to Claim 13, wherein said inner container transmissivity increases from said bottom portion to said top, open portion.

18. (Previously Presented) The pyrolytic boron nitride double container according to Claim 14, wherein said inner container transmissivity increases from said bottom portion to said top, open portion.

19. (Previously Presented) The pyrolytic boron nitride double container according to Claim 1, comprising a gap between said inner container and said outer container.

20. (Previously Presented) The pyrolytic boron nitride double container according to Claim 2, comprising a gap between said inner container and said outer container.

21. (Previously Presented) The pyrolytic boron nitride double container according to Claim 19, wherein said gap is 0.2 to 30 mm.

22. (Previously Presented) The pyrolytic boron nitride double container according to Claim 20, wherein said gap is 0.2 to 30 mm.

23. (Withdrawn) A method of manufacturing a pyrolytic boron nitride double container for a source of molecular beams used in molecular beam epitaxy, comprising:

forming an inner container and an outer container by a CVD reaction,
roughening an outer surface of the inner container, thereby adjusting an
amount of light scattered at the outer surface, and

setting an inner container transmissivity with respect to light having a wave number of 2600 cm^{-1} to 6500 cm^{-1} to 90% or less of an outer container transmissivity, with respect to light having a wave number of 2600 cm^{-1} to 6500 cm^{-1} .

24. (Withdrawn) A method of manufacturing a pyrolytic boron nitride double container for a source of molecular beams used in molecular beam epitaxy, comprising:

depositing pyrolytic boron nitride on a graphite mandrel by a CVD reaction,

thereby forming the double container,

forming a doped layer in the pyrolytic boron nitride container by introducing a dopant gas during the CVD reaction of the inner container,

adjusting at least one of the thickness, area and the doping density of the doped layer,

setting the inner container transmissivity with respect to light having a wave number of 2600 cm^{-1} to 6500 cm^{-1} to 90% or less of an outer container transmissivity, with respect to light having a wave number of 2600 cm^{-1} to 6500 cm^{-1} , and

separating the double container from the mandrel.

25. (Previously Presented) The pyrolytic boron nitride double container according to claim 1, wherein said inner container transmissivity is 70% or less of said outer container transmissivity.

26. (Previously Presented) The pyrolytic boron nitride double container according to claim 1, wherein said inner container comprises pyrolytic boron nitride combined with another material.

27. (Previously Presented) The pyrolytic boron nitride double container according to claim 1, wherein said inner container comprises pyrolytic boron nitride combined with pyrolytic graphite.